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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,509	08/09/2001	Peter Franciscus Marie Nacken	0142-0371P	4072

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EXAMINER

BAYAT, ALI

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,509

Applicant(s)

NACKEN, PETER FRANCISCUS
MARIE

Examiner

Ali Bayat

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-13 and 16-22 is/are rejected.
- 7) ☒ Claim(s) 4,5,14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments, see page 2 of applicant's remarks, filed 10/14/04, with respect to the rejection(s) of claim(s) 1-22 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Pollard (US 6,266,439) and Krtolica (US 2003/0012438 A1).

DETAILED ACTION

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-13 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollard (US 6,266,439) in view of Krtolica (US 2003/0012438 A1).

In regard to claim 1, Pollard provides for a method of extracting information elements from a colour-containing digital image (Fig.6 col.6 lines 25-35), the method comprising: distinguishing, in the digital image, connected components formed of contiguous pixels with a same colour (Fig.6 note text area and non-text area, col.6 lines 25-31); dividing connected component into background connected components and other connected components (Fig.6 col.6 lines 25-35). Pollard does not expressly provide for grouping contiguous ones of said other connected components; allocating connected components belonging to a group of said other connected components to a

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foreground or to the background on the basis of a predetermined allocation criterion. Krtolica provide for grouping contiguous ones and allocating connected components belonging to a group of said other connected components to a foreground or to the background on the basis of a predetermined allocation criterion; and combining contiguous connected components allocated to the foreground and extracting a combined entity as an information element (Fig.4A elements 412-421, paragraphs 49 and 51, note that the method continues by filtering 412 the identified components for target objects (text, graphics, charts and photographs). Pollard and Krtolica are combinable because they are from the same field of endeavor (image segmentation). At time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Krtolica (Paragraphs 49 and 51) to modify the system and method of Pollard. Because the system of Krtolica teaches "a target object filter (138) searches the connected components for target objects, making use of a target object library (146). Next, a target object filter (138) searches the connected components for target objects, making use of a target object library (146) to identify target objects characterized by such parameters as size, shape, and texture. Finally, an inverse mapper (140) locates the bounding rectangles of the target objects in the original sample image (144), and extracts the associated portions of the image (144) for analysis in a conventional image classifier (142)" see paragraph 10.

With regard to claims 2 and 12, Pollard provides for a method/apparatus,

For quantising the colours occurring in a digital image for processing, into a limited number of quantised colours, and replacing colours originally occurring in the image signals by quantised colours (col.6 lines 40-47).

As to claims 3 and 13 Pollard provides for a method/apparatus, wherein allocation criterion is based on a comparison of the colour of a connected component for allocation with the colours of a group of said other connected components of which the connected component for allocation forms part (col.2 lines 11-17), and also with the colour of a background connected component which at least partially surrounds the connected component for allocation (col.4 lines 56-62).

With regard to claims 6 and 16. See claim 1 above. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

In regard to claims 7-8 and 17-18 Pollard provides for a method/apparatus, of automatically interpreting a colour-containing digital image, the method comprising: extracting information elements from the colour-containing digital image; and performing an automatic interpretation processing (a lay-out analysis) on the basis of the extracted information elements (col.6 lines 25-35, note on the right the page has been classified into text and non-text areas in Fig.6).

With regard to claims 9-10 and 19-20, see claim 1 above. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

As to claim 11. See claim 1 above. It recites similar limitations as claim 1. Hence it is similarly analyzed and rejected.

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In regard to claims 21 and 22, Pollard provides for a computer program product with program code stored on a machine-readable medium (Fig.4 element 28, col.5 lines 48-49).

Objected claims

3. Claims 4-5 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Cited References

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent 5,956,419 to Kopec et al. is cited for unsupervised training of character templates using un-segmented samples.

US patent 6,687,404 to Hullet al. is cited for automatic training of layout parameters in a 2D image model.

US patent 5,778,092 to MacLeod et al. is cited for method and apparatus for compressing color or gray scale documents.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is (571) 272-7444.

The examiner can normally be reached on M-Thur 9:00-7:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat *AB*
Patent examiner
Group Art Unit 2625
3/25/05

Kanubhai Patel
KANUBHAI PATEL
PRIMARY EXAMINER